

PROF.SSA ORIANA PIERMATTI
CURRICULUM VITAE

Biographical data and Academic Curriculum

Prof.ssa Oriana Piermatti

Dipartimento di Chimica Biologia e Biotecnologie, Università di Perugia, Via Elce di sotto 8 - 06123 Perugia. Tel +39 0755855559.

- 21/11/1991: Degree in Chemistry with the vote of 110/110 and honours. Thesis title: Dicaranyl-boroenolates in the Asymmetric Aldol Addition. Supervisor: Prof. F. Fringuelli.
- 1/6/1992-31/10/92: CNR Scholarship within the project P. F. "Fine Chemistry II" for the specific issue "micro-aggregates from synthetic detergents and their applications" held at the Dept. of Chemistry, Chemical Engineering and Materials of University of L'Aquila, under the direction of Prof. G. Savelli.
- 1/11/1992-31/10/1995: PhD in Chemical Sciences at the Laboratory of Organic Chemistry, Department of Chemistry, University of Perugia, under the direction of Prof. F. Fringuelli.
- 15/01/96-31/12/96: Activities coordinated and continuous contract for professional services associated with the use of equipment supplied to the section of the Organic Chemistry of Department of Chemistry (Article N.26 of DPR n.382/80).
- 28/10/96: Obtained the PhD degree in Chemical Sciences at the University of Perugia.
- 01/11/96-31/10/97: Post-Doctorate Scholarship at the Laboratory of Organic Chemistry, Department of Chemistry, University of Perugia, under the direction of Prof. F. Fringuelli.
- 30/12/97: Technical Assistant (C/C3) at the Department of Chemistry, University of Perugia.
- 05/11/2003: Qualification in the comparative assessment for associate professor at the Faculty of Pharmacy of the University of Napoli Federico II., for the scientific field: organic chemistry-CHIM/06.
- 01/01/05 to date: Nominated Associate Professor in Organic Chemistry at the Faculty of Sciences MM.FF.NN., now Department of Chemistry Biology and Biotechnology of University of Perugia.

Teaching

- 1997-2004: has conducted support activities for the courses of Chemistry Laboratory for the degree of Biological Sciences.

-Academic year 2004/2005: has taken the course of Laboratory of Chemistry (3CFU) for the degree course in Biological Sciences.

-Academic year 2005/06, 2006/07 and 2007/08: has taken the courses of Organic Chemistry (6 CFU) and Laboratory of Organic Chemistry (6 CFU) for the degree course in Environmental Chemistry and the course of Laboratory of Chemistry (3CFU) for the degree course in Biological Sciences.

-Academic year 2008/09: has taken the course of Complements of Organic Chemistry for the degree course in Chemistry.

-Academic year 2009/10, 2010/11: has taken the course of Laboratory of Chemistry (3CFU) for the degree course in Biological Sciences and the course of NMR in Organic Chemistry for the degree course in Chemical Sciences.

-Academic year 2011/2012: has taken the course of Instrumental Analytical Chemistry (6 CFU) for the degree course in Chemistry and the course of Catalysis in Organic Chemistry (6 CFU) for the degree course in Chemical Science.

-Academic year 2012/2013: has taken the course of Laboratory of Organic Chemistry (6 CFU) for the degree course in Chemistry and the course of Catalysis in Organic Chemistry (6 CFU) for the degree course in Chemical Science.

-Academic year 2013/2014, 2014/2015: has taken the course of Organic Chemistry (8 CFU) for the degree course in Biological Sciences and the course of Catalysis in Organic Chemistry (6 CFU) for the degree course in Chemical Science.

-Academic year 2016/2017, 2017/2018: has taken the course of Organic Chemistry (8 CFU) and Laboratory of Chemistry (2 CFU) for the degree course in Biological Sciences and the course of Catalysis in Organic Chemistry (6 CFU) for the degree course in Chemical Science.

-Academic year 2018/2019: has taken the course of Organic Chemistry (8 CFU) and Laboratory of Chemistry (2 CFU) for the degree course in Biological Sciences and the course of Catalysis in Organic Chemistry (6 CFU) and Spectroscopic Methods for organic Chemistry (6 CFU) for the degree course in Chemical Science.

Scientific activities

The research has been focused on the development of new synthetic processes by improving the chemical efficiency and reducing the environmental impact by the elimination of organic solvent or the use of water as a reaction medium for the preparation of important classes of organic compounds. In recent year the research concerned the preparation of new zirconium phosphates and phosphonates, their characterization and their use in heterogeneous catalysis for organic processes that involve the removal of the organic solvent (solvent-free condition) or the use of water as reaction medium. The preparation of mixed organic-inorganic zirconium phosphates and phosphonates obtained by the functionalization of the layer with chiral compounds

such as L-Proline, allowed to prepare highly efficient chiral heterogeneous catalysts. Current research is directed toward the immobilization of metal nanoparticles such as palladium and gold on zirconium phosphates and phosphonates. The obtained materials are tested in coupling reactions, such as the Suzuki and the Heck reaction, and in reduction reaction of nitroarenes considering not only the reactivity but also the release in the reaction medium and the possible recovery and reuse of the catalyst for the realization of continuous flow processes.

The research led to the publication of 72 scientific works (including books and reviews) in international journals of high impact factor. H-index 26.